

# **Exhibit 1**

**IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF MISSOURI  
CENTRAL DIVISION**

<b>MICHAEL POSTAWKO, et al.,</b>	)	
	)	
<b>Plaintiff,</b>	)	
	)	
<b>v.</b>	)	<b>CASE NO. 2:16-cv-4219-NKL-P</b>
	)	
<b>MISSOURI DEPARTMENT OF</b>	)	
<b>CORRECTIONS, et al.</b>	)	
	)	
<b>Defendants.</b>	)	

**DECLARATION OF DR. JERRY LOVELACE**

I, DR. JERRY LOVELACE, pursuant to 28 U.S.C. § 1746, hereby make the following Declaration under penalty of perjury, declare that the statements made below are true, and state:

1. My name is Dr. Jerry Lovelace, M.D., PhD. I am over the age of nineteen (19) years and have personal knowledge of the information contained in this Declaration.

2. I am a physician licensed to practice medicine in Missouri, Tennessee, and Alabama. I am the Regional Medical Director ("RMD") for the State of Missouri for Corizon, LLC ("Corizon") and have served in this capacity since 2016.

3. Corizon is a limited liability corporation registered and in good standing with the State of Missouri. Corizon contracts with the State of Missouri to provide a defined scope of medical services to inmates in the custody of the Missouri Department of Corrections ("MDOC").

4. As the RMD, I am responsible for the approval and administration of the protocols (collectively, the "Missouri Policy") for the management and treatment of chronic hepatitis C ("HCV") under Corizon's contract with the MDOC. The Missouri Policy sets forth a detailed pathway for the screening and treatment of HCV. The Missouri Policy includes the following pathways and guidelines: a) Initial HCV Chronic Care Clinic, dated December 19, 2018; b)

Follow-Up HCV Chronic Care Clinic, dated December 19, 2018; c) Hepatitis C: Nurse Chronic Care Clinic Protocol, dated December 28, 2016; d) Cirrhosis Pathway, dated December 19, 2018; e) Hepatitis C Treatment Pathway, dated December 19, 2018; and f) Considerations for Hepatitis Treatment Pathway, dated December 19, 2018. These protocols are attached hereto collectively as Exhibit A.

5. I have reviewed the Affidavit of Dr. Thomas Bredeman, dated February 28, 2017 (the “Bredeman Affidavit”). As Dr. Bredeman stated, HCV is a viral, blood-borne infectious disease. Acute HCV infection can occur within the first six (6) months of exposure to the HCV virus, while chronic HCV refers to a long-term infection.

6. The Bredeman Affidavit accurately reflected HCV treatment policies for inmates in MDOC custody at the time. Most of these policies have been updated since that time, as reflected above. The key change since the Bredeman Affidavit is that Corizon now uses four (4) different direct-acting antiviral (“DAA”) drugs for HCV care (Vosevi, Epclusa, Mavyret and Zepatier). Medical providers prescribe these DAA drugs depending on the particular circumstances of each case. The current Missouri Policy also contains updated treatment considerations for Priority 1 patients, in a continuing effort to allow medical professionals to consider a broad range of factors in their treatment decisions.<sup>1</sup>

7. As discussed in the Bredeman Affidavit, the Missouri Policy is consistent with the Federal Bureau of Prisons’ Clinical Guidance for the Evaluation and Management of Chronic Hepatitis C Virus (HCV) Infection (the “FBOP Guidelines”). Reflecting the fact that DAA therapy for HCV is rapidly changing, the FBOP updated its Guidelines multiple times between May 2014

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<sup>1</sup> This declaration does not purport to update the medical conditions of the three Plaintiffs discussed in the Bredeman Affidavit: Michael Postawko, Christopher Baker, and Michael Jamerson.

and August 2018. The most recent version of the FBOP Guidelines, dated August 2018, is available at [https://www.bop.gov/resources/pdfs/hcv\\_infection\\_20180906.pdf](https://www.bop.gov/resources/pdfs/hcv_infection_20180906.pdf).

8. Consistent with the FBOP Guidelines, providers within the MDOC assign each inmate with chronic HCV a Priority Level of 1, 2, or 3. Priority 1 represents the highest priority for treatment, while Priority 3 represents the lowest priority.

9. I am also aware of the guidance for HCV promulgated by the American Association for the Study of Liver Disease (the “AASLD”) and the Infectious Disease Society of America (the “IDSA”). This guidance is available at <https://www.hcvguidelines.org/>. Providers within the MDOC frequently consult this guidance in determining the appropriate course of treatment for particular inmates with HCV. While this guidance is a helpful resource for practitioners, I do not understand the guidance to represent the standard of care or otherwise provide any mandatory requirements with respect to HCV treatment.

10. The science surrounding DAA therapy continues to evolve. Several new DAA drugs have become available in recent years. Medical providers within MDOC facilities keep abreast of these new medications and prescribe them as appropriate. Between 2015 and 2019, providers within MDOC have prescribed DAA therapy for an increasing number of inmates each year. Approximately five (5) inmates completed DAA therapy in 2015. In 2016, approximately fourteen (14) inmates completed DAA therapy. That number increased to approximately nineteen (19) in 2017 and approximately fifty-one (51) in 2018. Through June 30, 2019, approximately fifty (50) inmates in MDOC custody completed DAA therapy. Approximately another 150 inmates were receiving DAA therapy as of June 30, 2019. All of the inmates designated Priority 1, with the exception of those who only recently received that designation, completed or were receiving DAA therapy as of June 30, 2019.

11. I also am familiar with the potential costs associated with DAA therapy. DAA therapy for all inmates diagnosed with HCV currently in the custody of MDOC would cost approximately \$90,000,000, which is roughly 68% of the total budget for medical and mental health services.<sup>2</sup> Such an expenditure on medically unnecessary therapy would severely impact the ability to provide other, potentially more urgent, medical care to inmates within MDOC.

I declare under penalty of perjury that the foregoing is true and correct. I understand that a false statement in this Declaration will subject me to penalties for perjury.

Executed on August 5, 2019



DR. JERRY LOVELACE

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<sup>2</sup> This number is dependent on a number of factors, including but not limited to the specific genotype of HCV and specific type of DAA therapy required for each inmate, the timing of DAA therapy, and potential changes in the inmate population.

# Exhibit A

<b>TITLE:</b>	<b>Cirrhosis Pathway</b>
<b>Physician Approval/Date:</b> Dr. Jerry Lovelace M.D	

\_\_\_\_\_ ALT  
 \_\_\_\_\_ Creatinine  
 \_\_\_\_\_ eGFR  
 \_\_\_\_\_ Total bilirubin  
 Date: \_\_\_\_\_ Results: \_\_\_\_\_  
 \_\_\_\_\_ HGB  
 \_\_\_\_\_ Platelets  
 \_\_\_\_\_ PT/INR

\*\*For below calculations see: <http://www.hepatitisc.uw.edu/page/clinical-calculators/apri>

\_\_\_\_\_ APRI Score  
 \_\_\_\_\_ CTP Score  
 \_\_\_\_\_ FIB-4 index

\_\_\_\_\_ Y/N Ultrasound results: \_\_\_\_\_  
 \_\_\_\_\_ Y/N EGD results: \_\_\_\_\_

\_\_\_\_\_ Y/N Hepatitis A immune or vaccination  
 \_\_\_\_\_ Y/N Hepatitis B immune or vaccination  
 \_\_\_\_\_ Y/N Pneumococcal vaccination: If yes; date: \_\_\_\_\_  
 \_\_\_\_\_ Y/N Potentially hepatotoxic drugs (esp. NSAIDS, Metformin if end stage): \_\_\_\_\_  
 \_\_\_\_\_ Y/N Other medical conditions: \_\_\_\_\_

#### (A) ASSESSMENT:

##### PRIORITIES FOR TREATMENT:

###### PRIORITY 1:

- ADVANCED HEPATIC FIBROSIS/CIRRHOSIS, LIVER TRANSPLANT RECIPIENTS, HCC, COMORBID HEPATITIS C CONDITIONS, IMMUNOSUPPRESSANT MEDICATION, OFFENDERS ALREADY ON TREATMENT---REFER TO CONSIDERATION OF HEPATITIS C TREATMENT PATHWAY

###### PRIORITY 2:

- HIV OR HEPATITIS B CO-INFECTION, APRI  $\geq 0.7$ -1.99, STAGE 2 FIBROSIS, DM, COMORBID LIVER DISEASE, eGFR  $\leq 59$

###### PRIORITY 3:

- APRI  $< 0.7$ , FIBROSIS  $\leq$  STAGE 1

\_\_\_\_\_ Y/N Compensated (Child A, CTP 5-6)  
 \_\_\_\_\_ Y/N Functionally compromised (Child B, CTP 7-9)  
 \_\_\_\_\_ Y/N Decompensated (Child C, CTP 10+)  
 \_\_\_\_\_ Y/N Hepatitis B  
 \_\_\_\_\_ Y/N Hepatitis C  
 \_\_\_\_\_ Y/N Other (Non-alcoholic fatty liver disease, hemochromatosis, autoimmune, cholangitis, alcoholic cirrhosis)  
 Specify: \_\_\_\_\_

#### (B) PLAN:

\_\_\_\_\_ Y/N Update problem list and M-score (M-score 3-4 if CTP  $> 6$ , 5 if TCU care needed)

**Cirrhosis Pathway**

12/19/18

Page 2 of 3



- \_\_\_\_\_ Y/N Currently undergoing treatment for Hepatitis B or C
- \_\_\_\_\_ Y/N Liver ultrasound every 6 months if APRI >2, CTP >6, FIB-4 index >3.25 or clinical signs of cirrhosis.
- \_\_\_\_\_ Y/N EGD to screen for varices if evidence of functional compromise (CTP >6, portal hypertension noted on US, platelets <150,000 in Hepatitis C, or FIB-4 index >3.25)-every 2-3 years if compensated, 1-2 years if small varices and not on B-blocker, yearly if decompensated.
- \_\_\_\_\_ Y/N If FIB-4 between 1.45-3.25, findings are indeterminate, consider Fibrosure test
- \_\_\_\_\_ Y/N Non-selective beta-blocker (propranolol, nadolol) or carvedilol if evidence of varices in Child B or C (goal heart rate 55-60 unless refractory ascites)
- \_\_\_\_\_ Y/N Avoid NSAIDS, PPI, Metformin or reduce dosages of some medications (antibiotics, SSRI's) if decompensated or hepatorenal syndrome (add to allergy screen)
- \_\_\_\_\_ Y/N Pneumococcal vaccine (PPSV23), provide pneumococcal vaccine initially. Revaccinate at age  $\geq 65$  if they were vaccinated  $\geq 5$  years previously and were aged <65 at the time of initial vaccination
- \_\_\_\_\_ Y/N If patient is not already immune to HAV (known by positive HAV total AB) or already s/p vaccination, Hepatitis A Vaccine series 1 ml now then repeat in 6 months.
- \_\_\_\_\_ Y/N If patient is not already immune to HBV or already S/P vaccination, Hepatitis B Vaccine series 1 ml now then repeat in 1 month then 6 months
  
- \_\_\_\_\_ Y/N Ascites (spironolactone: furosemide at ratio of 100:40 up to 400:160/day-use by mouth in the morning; and Na<sup>+</sup> restriction (2000mg/day) – avoid ACE, ARB, non-selective B-blockers if refractory)
- \_\_\_\_\_ Y/N Encephalopathy – lactulose/rifaximin
- \_\_\_\_\_ Y/N Antibiotic prophylaxis if high risk spontaneous bacterial peritonitis (prior episode SBP, variceal Hemorrhage, serum albumin <2). Treatment: Bactrim DS daily or Cipro 500mg daily
- \_\_\_\_\_ Y/N Physician follow-up in 6 months if Child A or B (CTP  $\geq 6-9$ )
- \_\_\_\_\_ Y/N Obtain: CMP, CBC and PT/INR every 6 months if Child A or B (CTP  $\geq 6-9$ )
- \_\_\_\_\_ Y/N Physician follow-up in 3 months if CTP C (CTP  $\geq 10$ )
- \_\_\_\_\_ Y/N Chronic Care visit sooner; if yes, when: \_\_\_\_\_
- \_\_\_\_\_ Y/N Obtain: CMP, CBC and PT/INR every 3 months if CTP C (CTP  $\geq 10$ )
- \_\_\_\_\_ Y/N Patient counseled on immediate follow-up if symptoms of decompensation (increased abdominal girth, LE edema, hematemesis)

Candidate for treatment of Hepatitis C – complete labs for Hepatitis C treatment and notify RMD



**TITLE:** Consideration of Hepatitis C Treatment

**Physician Approval/Date:** Dr. Jerry Lovelace, M.D.

**(S) SUBJECTIVE:**

\_\_\_\_ Y/N Patient complains of HCV symptoms (N/V, abdominal pain, fatigue, jaundice)

If so; list: \_\_\_\_\_

\_\_\_\_ Y/N Patient complains of symptoms of cirrhosis (easy bruising, LE edema, increasing abdominal girth, hematemesis) If so; list: \_\_\_\_\_

Brief review of risks: \_\_\_\_\_

**(O) OBJECTIVE:**

\_\_\_\_ Y/N Advanced hepatic fibrosis/cirrhosis (confirmed by ultrasound, biopsy, esophageal varices, ascites, physical stigmata, APRI >2, FIB-4 >1.45, low albumin, AST/ALT Ratio >1)

\_\_\_\_ Y/N Liver transplant recipient

\_\_\_\_ Y/N HIV or Hepatitis B co-infection

\_\_\_\_ Y/N Comorbid medical condition associated with HCV, e.g. cryoglobulinemia, certain types of lymphomas, hematologic malignancies, porphyria cutanea tarda, vasculitis

\_\_\_\_ Y/N Newly incarcerated offender being treated at the time of incarceration

\_\_\_\_ Y/N On immunosuppressant therapy

\_\_\_\_ Y/N Hepatocellular carcinoma

\_\_\_\_ Y/N Diabetes mellitus

\_\_\_\_ Y/N Chronic kidney disease 3 or greater (eGFR ≤59)

\_\_\_\_ Y/N Life expectancy >18 months

\_\_\_\_ Y/N Pregnant

\_\_\_\_ Y/N Co-morbid liver diseases (autoimmune hepatitis, hemochromatosis, steatohepatitis)

\_\_\_\_ Y/N HCV Antibodies positive: Date: \_\_\_\_\_

\_\_\_\_ Y/N Icterus or jaundice

\_\_\_\_ Y/N Ascites

\_\_\_\_ Y/N Peripheral edema

\_\_\_\_ Y/N Spider angiomas or spider telangiectasia

\_\_\_\_ Y/N Hepatomegaly

\_\_\_\_ Y/N Asterixis

Abdominal Exam: \_\_\_\_\_

Consideration of Hepatitis C Treatment Pathway

12/19/18

Page 1 of 4

Skin findings: \_\_\_\_\_  
Physical findings of cirrhosis: \_\_\_\_\_

\_\_\_\_\_ Y/N Labs Reviewed

Labs:

<u>Date:</u>	<u>Results:</u>
_____	_____ Albumin
_____	_____ AST
_____	_____ ALT
_____	_____ Total bilirubin
_____	_____ Platelets

APRI Score: \_\_\_\_\_ FIB-4: \_\_\_\_\_ CTP: \_\_\_\_\_

\*\*\*\*\*For APRI calculations see: <http://www.hepatitisc.uw.edu/page/clinical-calculators/apri>

<u>Date:</u>	<u>Results:</u>
_____	_____ WBC
_____	_____ Hgb
_____	_____ MCV
_____	_____ ANC
_____	_____ Creatinine/eGFR
_____	_____ PT/INR
_____	_____ ANA

Date: \_\_\_\_\_ Results: \_\_\_\_\_  
Iron: \_\_\_\_\_ TIBC: \_\_\_\_\_ % Iron Sat: \_\_\_\_\_ Ferritin: \_\_\_\_\_

<u>Date:</u>	<u>Results:</u>
_____	_____ HIV
_____	_____ Pregnancy test (female)

Date: \_\_\_\_\_ Results: \_\_\_\_\_  
Hepatitis B Surf Ag: \_\_\_\_\_ Hepatitis B Surf Ab: \_\_\_\_\_  
Hepatitis B Core Ab: \_\_\_\_\_ Hepatitis A Total Ab: \_\_\_\_\_  
Hepatitis B Delta x 1 (If Hepatitis B positive) \_\_\_\_\_

<u>Date:</u>	<u>Results:</u>
_____	_____ Genotype (if known)
_____	_____ Viral load (if known)
_____	_____ Fibrosure test (if known)
_____	_____ Liver biopsy-stage

Mandatory Release Date: \_\_\_\_\_  
Parole Date: \_\_\_\_\_

\_\_\_\_\_ Y/N HAV total antibodies positive or vaccine

**Consideration of Hepatitis C Treatment Pathway**

12/19/18

Page 2 of 4

\_\_\_\_ Y/N HBV surface antigen positive  
\_\_\_\_ Y/N HBV surface antibody positive or vaccine  
\_\_\_\_ Y/N Pneumococcal vaccine given: If yes; date: \_\_\_\_\_  
\_\_\_\_ Y/N Is patient on any potentially hepatotoxic drugs: If yes; list: \_\_\_\_\_  
Other medical conditions: \_\_\_\_\_

**(A) ASSESSMENT:**

Hepatitis C

**PRIORITIES FOR TREATMENT:**

**PRIORITY 1**

\_\_\_\_ Y/N ADVANCED HEPATIC FIBROSIS/CIRRHOSIS,  
\_\_\_\_ Y/N LIVER TRANSPLANT RECIPIENTS  
\_\_\_\_ Y/N HCC  
\_\_\_\_ Y/N COMORBID HEPATITIS C CONDITIONS  
\_\_\_\_ Y/N IMMUNOSUPPRESSANT MEDICATION  
\_\_\_\_ Y/N OFFENDERS ALREADY ON TREATMENT

**PRIORITY 2**

\_\_\_\_ Y/N HIV CO-INFECTION  
\_\_\_\_ Y/N HEPATITIS B CO-INFECTION  
\_\_\_\_ Y/N APRI  $\geq 0.7$   
\_\_\_\_ Y/N STAGE 2 FIBROSIS  
\_\_\_\_ Y/N DM  
\_\_\_\_ Y/N COMORBID LIVER DISEASE  
\_\_\_\_ e-GFR  $\leq 59$

If cirrhotic:

\_\_\_\_ Y/N Compensated (Child A, CTP 5-6)  
\_\_\_\_ Y/N Functionally compromised (Child B, CTP 7-9)  
\_\_\_\_ Y/N Decompensated (Child C, CTP 10+)  
\_\_\_\_ Y/N Other (non-alcoholic fatty liver disease, hemochromatosis, autoimmune, cholangitis, alcoholic cirrhosis)  
Specify: \_\_\_\_\_

**(P) PLAN:**

**Consideration of Treatment/Priority 1**

\_\_\_\_ Y/N Patient counseled by physician on treatment and side effects  
\_\_\_\_ Y/N Consent for treatment reviewed and signed  
\_\_\_\_ Y/N No consideration of treatment or refusal of treatment-return to the Follow-up HCV  
Chronic Care Clinic  
\_\_\_\_ Y/N Patient's current Hepatitis C status was discussed  
\_\_\_\_ Y/N Obtain any labs not already completed under objective (ferritin, % Iron sat, TIBC, ANA, Hepatitis  
C viral load, CBC, CMP, PT/INR, Hepatitis Delta if Hepatitis B Positive)  
\_\_\_\_ Y/N Evidence of current/prior medication adherence compliance? If yes; list: \_\_\_\_\_  
\_\_\_\_ Y/N Review of recent health risk exposures (new tattoos, substance use or possession)  
List any concerns: \_\_\_\_\_

Obtain the following AFTER approved for the initiation of treatment:

**Consideration of Hepatitis C Treatment Pathway**

12/19/18

Page 3 of 4

- \_\_\_\_\_ Y/N Obtain urine toxicology
- \_\_\_\_\_ Y/N Obtain TSH, ANC if Ribavirin to be used (Regional Office will advise)
- \_\_\_\_\_ Y/N Obtain HCV Genotype-if HCV RNA PCR shows virus, <90 days before treatment to start
- \_\_\_\_\_ Y/N Obtain fundoscopic exam if retinopathy and Ribavirin to be used
- \_\_\_\_\_ Y/N Obtain a urine pregnancy test on females
- \_\_\_\_\_ Y/N EKG (if pre-existing cardiac history and Ribavirin)
- \_\_\_\_\_ Y/N HIV Positive and well controlled HIV disease, consult HIV Expert for treatment recommendations
- \_\_\_\_\_ Y/N Educate on birth defects and need for 2 forms of birth control up to 6 months post treatment if Ribavirin indicated.



<b>TITLE:</b>	<b>Follow-up HCV Chronic Care Clinic</b>
<b>Physician Approval/Date:</b> Dr. Jerry Lovelace, M.D.	

**(S)     SUBJECTIVE:**

\_\_\_\_\_ Y/N Patient complains of HCV symptoms (N/V, abdominal pain, fatigue, jaundice) If so;  
List: \_\_\_\_\_

\_\_\_\_\_ Y/N Patient complains of symptoms of cirrhosis (easy bruising, LE edema, increasing abdominal girth, hematemesis)  
List: \_\_\_\_\_

Brief review of risks: \_\_\_\_\_

**(O)     OBJECTIVE:**

- \_\_\_\_\_ Y/N Advanced hepatic fibrosis/cirrhosis (confirmed by ultrasound, biopsy, esophageal varices , ascites, physical stigmata, APRI >2, FIB-4 >3.25, low albumin, AST/ALT Ratio >1)
- \_\_\_\_\_ Y/N Liver transplant recipient
- \_\_\_\_\_ Y/N HIV or Hepatitis B co-infection
- \_\_\_\_\_ Y/N Comorbid medical condition associated with HCV, e.g. cryoglobulinemia, certain types of lymphomas, Hematologic malignancies, porphyria cutanea tarda, vasculitis
- \_\_\_\_\_ Y/N Newly incarcerated offender being treated at the time of incarceration
- \_\_\_\_\_ Y/N On immunosuppressant therapy
- \_\_\_\_\_ Y/N Hepatocellular carcinoma
- \_\_\_\_\_ Y/N Diabetes mellitus
- \_\_\_\_\_ Y/N Chronic kidney disease 3 or greater (eGFR <=59)
- \_\_\_\_\_ Y/N Life expectancy >18 months
- \_\_\_\_\_ Y/N Pregnant
- \_\_\_\_\_ Y/N Co-morbid liver diseases (autoimmune hepatitis, hemochromatosis, steatohepatitis)
  
- \_\_\_\_\_ Y/N HCV Antibodies positive: Date: \_\_\_\_\_
- \_\_\_\_\_ Y/N Icterus or jaundice
- \_\_\_\_\_ Y/N Ascites
- \_\_\_\_\_ Y/N Peripheral edema
- \_\_\_\_\_ Y/N Spider angiomas or spider telangiectasia
- \_\_\_\_\_ Y/N Hepatomegaly
- \_\_\_\_\_ Y/N Asterix

Abdominal Exam: \_\_\_\_\_

Skin findings: \_\_\_\_\_  
Physical findings of cirrhosis: \_\_\_\_\_

\_\_\_\_ Y/N Labs Reviewed

Labs:

Date:	Previous Results:	Date:	Current Results:
_____	_____ Albumin	_____	_____ Albumin
	_____ AST		_____ AST
	_____ ALT		_____ ALT
	_____ Total bilirubin		_____ Total Bilirubin
Date:			
_____	_____ Platelets	_____	_____ Platelets

\_\_\_\_\_ APRI Score      \_\_\_\_\_ FIB-4 Score      \_\_\_\_\_ APRI Score      \_\_\_\_\_ FIB-4 Score

\*\*\*\*\* For APRI calculations see: <http://www.hepatitisc.uw.edu/page/clinical-calculators/apri>

Date:	Results:
_____	_____ Genotype (if known)
_____	_____ Viral load (if known)

Liver biopsy-stage: \_\_\_\_\_ Date: \_\_\_\_\_

Treatment Completion Date: \_\_\_\_\_

\_\_\_\_ Y/N HAV total antibodies positive or vaccine  
\_\_\_\_ Y/N HBV surface antigen positive  
\_\_\_\_ Y/N HBV surface antibody positive or vaccine  
\_\_\_\_ Y/N Hepatitis B Core Ab positive  
\_\_\_\_ Y/N Is patient on any potentially hepatotoxic drugs  
If yes, list: \_\_\_\_\_

Other medical conditions: \_\_\_\_\_

**(A)      ASSESSMENT:**

**PRIORITIES FOR TREATMENT:**

**PRIORITY 1**

- **ADVANCED HEPATIC FIBROSIS/CIRRHOSIS, LIVER TRANSPLANT RECIPIENTS, HCC, COMORBID HEPATITIS C CONDITIONS, IMMUNOSUPPRESSANT MEDICATION, OFFENDERS ALREADY ON TREATMENT---REFER TO CONSIDERATION OF HEPATITIS C TREATMENT PATHWAY**

**PRIORITY 2**

- **HIV OR HEPATITIS B CO-INFECTION, APRI  $\geq 0.7$ -1.99, STAGE 2 FIBROSIS, DM, COMORBID LIVER DISEASE, e-GFR  $\leq 59$**

**PRIORITY 3**

- **APRI  $< 0.7$ , FIBROSIS  $\leq$  STAGE 1**

\_\_\_\_ Y/N Improved  
\_\_\_\_ Y/N Stable  
\_\_\_\_ Y/N Worsened

Follow-up HCV Chronic Care Pathway

12-19-18

Page 2 of 3

\_\_\_\_ Y/N Evidence of cirrhosis (physical signs of cirrhosis, APRI  $\geq 2$ , CTP  $\geq 6$ , Hep C with plt.  $< 150,000$ , FIB-4  $> 3.25$ , low albumin, AST/ALT Ratio  $> 1$ )

\_\_\_\_ Y/N Resolved (no detectable HCV RNA 6-12 months post treatment or if untreated no detectable viral load x 1)

Date and result of SVL: \_\_\_\_\_

\_\_\_\_ Y/N Failed Treatment

#### Chronic Hepatitis C

\_\_\_\_ Y/N Patient is priority 1

\_\_\_\_ Y/N Patient is priority 2 or 3

\_\_\_\_ Y/N Patient declines therapy (signed refusal of treatment and documented)

\_\_\_\_ Y/N Failed prior treatment

\_\_\_\_ Y/N Dual Therapy

\_\_\_\_ Y/N Triple Therapy

\_\_\_\_ Y/N Does have enough time remaining in prison to complete treatment-Release Date: \_\_\_\_\_

\_\_\_\_ Y/N Other medical contraindication (life expectancy  $< 18$  mo, pregnancy, other) If yes, list: \_\_\_\_\_

\_\_\_\_ Y/N Demonstrates on-going or recent high risk behavior – drug use, new tattoos, etc.

#### (P) PLAN:

##### Priority 1:

\_\_\_\_ Y/N if evidence of cirrhosis, reassess every 3-6 months in CY clinic using the Cirrhosis Pathway

\_\_\_\_ Y/N APRI  $> 2$  on two occasions and AST/ALT Ratio  $> 1$

\_\_\_\_ Y/N Stigmata of cirrhosis on physical exam (esp. spider angiomas)

\_\_\_\_ Y/N Evidence of ascites, esophageal varices

\_\_\_\_ Y/N FIB-4  $> 3.25$

\_\_\_\_ Y/N FIB-4 between 1.45-3.25, findings are indeterminate, consider Fibrosure test

\_\_\_\_ Y/N Low albumin

##### Plan for Priority 2 or 3

\_\_\_\_ Y/N Physician CY Chronic Care appointment every 6 months if APRI  $> 0.7$

\_\_\_\_ Y/N Chronic Care appointment sooner, if yes; when: \_\_\_\_\_

\_\_\_\_ Y/N Physician CY Chronic Care appointment every 12 months if APRI  $< 0.7$ , with nursing clinic at 6 months

\_\_\_\_ Y/N CMP, CBC (with differential & platelets) every 6 months if APRI  $> 0.7$

\_\_\_\_ Y/N CMP, CBC (with differential & platelets) every 12 months if APRI  $< 0.7$ , with nursing clinic at 6 months

\_\_\_\_ Y/N If hepatitis B positive, must be on treatment for Hepatitis B with negative viral load before referring for treatment

\_\_\_\_ Y/N Evaluate APRI and FIB-4 scores with each lab draw

\_\_\_\_ Y/N M-Score and Duty Status appropriate

\_\_\_\_ Y/N If patient is not already immune to HAV (known by positive HAV total AB) or already s/p vaccination, Hepatitis A Vaccine 1 ml now then repeat in 6 months.

\_\_\_\_ Y/N If patient is not already immune to HBV or already S/P vaccination, Hepatitis B Vaccine series 1 ml now then repeat in 1 month then 6 months

\_\_\_\_ Y/N Patient's current Hepatitis C status was discussed

\_\_\_\_ Y/N Consider HCV RNA if LFT's are within normal limits for 2 years

\_\_\_\_ Y/N Remove from clinic if undetectable HCV RNA

#### Follow-up HCV Chronic Care Pathway

12-19-18

Page 3 of 3





<b>TITLE:</b>	<b>Hepatitis C Treatment</b>
<b>Physician Approval/Date:</b> Dr. Jerry Lovelace, M.D.	

**(S) SUBJECTIVE:**

\_\_\_\_ Y/N Side effects (common-HA, fatigue, weakness; less common insomnia, N/V, dizziness, depression, cough)  
List: \_\_\_\_\_

\_\_\_\_ Y/N Side effects from ribavirin (flu-like symptoms, fatigue, neuro-psychiatric, hematologic,,worsening cardiac symptoms)

**(O) OBJECTIVE:**

Date of diagnosis of Hepatitis C: \_\_\_\_\_

Week of medication: \_\_\_\_\_

\_\_\_\_ Y/N Ribavirin - Decision to use ribavirin will be made by the Regional Office.

Physical Exam:

Heart: \_\_\_\_\_

Abdomen: \_\_\_\_\_

Skin: \_\_\_\_\_

\_\_\_\_ Y/N Labs Reviewed

Date: \_\_\_\_\_

Genotype: \_\_\_\_\_

HCV RNA pre-treatment: \_\_\_\_\_

HCV RNA at 4 weeks (repeat at 6 weeks if still detectable at 4 weeks) \_\_\_\_\_

HCV RNA at 6 weeks (only if still detectable at 4 weeks) \_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_ Albumin

**If ribavirin**

\_\_\_\_ AST

\_\_\_\_ Hgb

\_\_\_\_ ALT

\_\_\_\_ Platelets

\_\_\_\_ Creatinine

\_\_\_\_ ANC

\_\_\_\_ Total bilirubin

\_\_\_\_ TSH

\_\_\_\_ eGFR (if <30 Ledipasvir and Sofosbuvir contra-indicated)

\_\_\_\_ APRI Score

\_\_\_\_ CTP Score

\_\_\_\_ FIB-4 Score

\_\_\_\_ Y/N Hepatitis A immune or vaccination

**Hepatitis C Treatment Pathway**

**12/19/18**

**Page 1 of 3**

\_\_\_\_ Y/N Hepatitis B immune or vaccination  
\_\_\_\_ Y/N Potential drug interactions: (esp. PPI, H2-antagonist, antacids, tenofovir, oxcarbazepine, rosuvastatin, amiodarone for ledipasavir/sofosbuvir: azathioprine, didanosine, zidovudine for ribavirin)  
If yes, list: \_\_\_\_\_  
\_\_\_\_ Y/N Underlying retinopathy  
Other medical conditions: \_\_\_\_\_

**(A) ASSESSMENT:**

\_\_\_\_ Y/N Cirrhosis  
\_\_\_\_ Y/N Compensated (Child Pugh A or B)  
\_\_\_\_ Y/N Decompensated (Child Pugh C)  
\_\_\_\_ Y/N Hepatitis C  
\_\_\_\_ Y/N Treatment naïve  
\_\_\_\_ Y/N Treatment experienced  
Genotype: \_\_\_\_\_  
\_\_\_\_ Y/N Improved  
\_\_\_\_ Y/N Stable  
\_\_\_\_ Y/N Worsened  
\_\_\_\_ Y/N Successful Treatment (6-12 month post treatment with undetectable viral load)  
Date and result of SVL: \_\_\_\_\_  
\_\_\_\_ Y/N Failed Treatment  
\_\_\_\_ Y/N Treatment with antiviral:  
List: \_\_\_\_\_  
\_\_\_\_ Y/N Treatment includes ribavirin (**Hemolytic anemia is the primary clinical toxicity of oral therapy; anemia associated with ribavirin may worsen underlying cardiac disease and lead to fatal and nonfatal myocardial infarctions. Avoid use in patients with significant/unstable cardiac disease**)

**(P) PLAN:**

If antiviral alone:  
\_\_\_\_ Y/N Treatment with: List: \_\_\_\_\_  
\_\_\_\_ Y/N CMP & CBC per committee recommendations  
\_\_\_\_ Y/N More frequent if concerning trends.  
\_\_\_\_ Y/N Provider visit monthly

If ribavirin included:

\_\_\_\_ Y/N CMP and CBC per committee recommendations  
\_\_\_\_ Y/N More frequent if concerning trends.  
\_\_\_\_ Y/N TSH at baseline and week 12  
\_\_\_\_ Y/N Preexisting ophthalmologic disorders (eg, diabetic or hypertensive retinopathy) require periodic optometry follow-up  
\_\_\_\_ Y/N Pre-existing psychiatric disorder with worsening—refer to psychiatry  
\_\_\_\_ Y/N Provider visit monthly

Dosing, for period prescribed by Regional Office (will vary from 12-24 weeks)

**Hepatitis C Treatment Pathway**

12/19/18

Page 2 of 3

\_\_\_\_\_ Y/N <75 kg: 1,000 mg daily in 2 divided doses  
\_\_\_\_\_ Y/N ≥75 kg: 1,200 mg daily in 2 divided doses  
Dosing Modification based on hemoglobin level:  
\_\_\_\_\_ Y/N Hb ≥ 10 no change  
\_\_\_\_\_ Y/N Hb 8.5-9.9 reduce dose to 800mg total daily dose  
\_\_\_\_\_ Y/N Hb <8.5 hold ribavirin for 1 week then resume at 600mg total daily dose  
\_\_\_\_\_ Y/N Platelets <25,000 stop all meds

For all patients:

\_\_\_\_\_ Y/N Hepatitis C RNA (viral load) at week 4  
\_\_\_\_\_ Y/N Hepatitis C RNA (viral load) at week 6 if detectable at week 4  
\_\_\_\_\_ Y/N Hepatitis C RNA at 12 weeks post treatment completion  
\_\_\_\_\_ Y/N Hepatitis C RNA (viral load) at 6-12 months post treatment for SVR  
  
\_\_\_\_\_ Y/N D/C treatment if ALT >10 x baseline or if hyperbilirubinemia or if accompanied by symptoms of liver failure  
\_\_\_\_\_ Y/N D/C treatment if the 6 week viral load has increased >1 log  
  
\_\_\_\_\_ Y/N D/C treatment pathway once treatment completed  
\_\_\_\_\_ Y/N D/C CY clinic if 6-12 mo post treatment viral load (SVR) assured  
\_\_\_\_\_ Y/N If evidence of cirrhosis and SVR assured, then continue to follow in Internal Medicine Clinic  
Instead (using the Cirrhosis Pathway)



<b>TITLE:</b>	<b>Initial HCV Chronic Care Clinic</b>
<b>Physician Approval/Date: Dr. Jerry Lovelace, M.D.</b>	

**(S)     SUBJECTIVE:**

Do you know when you acquired this \_\_\_\_\_ ?

Risk Factors:

\_\_\_\_\_ Y/N IV or intranasal drug use

      Date first used: \_\_\_\_\_

      Date last used: \_\_\_\_\_

\_\_\_\_\_ Y/N First tattoo

      Date

      Prison/jail? \_\_\_\_\_

\_\_\_\_\_ Y/N Dialysis

\_\_\_\_\_ Y/N Transfusion/organ transplant before 1992

\_\_\_\_\_ Y/N Alcohol history

      Date first used: \_\_\_\_\_

      Date last used: \_\_\_\_\_

\_\_\_\_\_ Y/N Patient complains of HCV symptoms – (nausea/vomiting, abdominal pain, fatigue, jaundice)

      If so list: \_\_\_\_\_

\_\_\_\_\_ Y/N Patient complains of symptoms of cirrhosis (easy bruising, LE edema, increasing abdominal girth, hematemesis)

      List: \_\_\_\_\_

\_\_\_\_\_ Y/N History of treatment for hepatitis C?

      Dates: \_\_\_\_\_

      Agents used: \_\_\_\_\_

\_\_\_\_\_ Y/N Viral clearance

**(O)     OBJECTIVE:**

\_\_\_\_\_ Y/N Advanced hepatic fibrosis/cirrhosis (confirmed by ultrasound, biopsy, esophageal varices, ascites, physical stigmata, APRI >2, FIB-4 >3.25, low albumin, AST/ALT Ratio >1)

\_\_\_\_\_ Y/N Liver transplant recipient

\_\_\_\_\_ Y/N HIV or Hepatitis B co-infection

\_\_\_\_\_ Y/N Comorbid medical condition associated with HCV, e.g. cryoglobulinemia and certain types of lymphomas, Hematologic malignancies, porphyria cutanea tarda, vasculitis

\_\_\_\_\_ Y/N Newly incarcerated offender being treated at the time of incarceration

**Initial HCV Chronic Care Pathway**

**12/19/18**

**Page 1 of 4**

\_\_\_\_ Y/N On immunosuppressant therapy  
\_\_\_\_ Y/N Hepatocellular carcinoma  
\_\_\_\_ Y/N Diabetes mellitus  
\_\_\_\_ Y/N Chronic kidney disease 3 or greater (eGFR  $\leq$  59)  
\_\_\_\_ Y/N Life expectancy >18 months  
\_\_\_\_ Y/N Pregnant  
\_\_\_\_ Y/N Co-morbid liver diseases (autoimmune hepatitis, hemochromatosis, steatohepatitis)

\_\_\_\_ Y/N HCV Antibodies positive: Date: \_\_\_\_\_  
\_\_\_\_ Y/N Icterus or jaundice  
\_\_\_\_ Y/N Ascites  
\_\_\_\_ Y/N Peripheral edema  
\_\_\_\_ Y/N Spider angiomas or spider telangiectasia  
\_\_\_\_ Y/N Hepatomegaly  
\_\_\_\_ Y/N Asterix

Abdominal Exam: \_\_\_\_\_

Skin findings: \_\_\_\_\_

Physical findings of cirrhosis: \_\_\_\_\_

\_\_\_\_ Y/N Labs Reviewed

Labs:

Date:	Results:
_____	_____ Albumin
_____	_____ AST
_____	_____ ALT
_____	_____ Total bilirubin
_____	_____ Platelets

\_\_\_\_ APRI Score      \_\_\_\_\_ FIB-4 Score

\*\*\*\*\* For APRI calculations see: <http://www.hepatitisc.uw.edu/page/clinical-calculators/apri>

Date:	Results:
_____	_____ Genotype (if known)
_____	_____ Viral load (if known)
_____	_____ Liver biopsy-stage:
_____	_____ Fibrosure test

\_\_\_\_ Y/N HAV total antibodies positive or vaccine  
\_\_\_\_ Y/N HBV surface antigen positive/chronic hep B  
\_\_\_\_ Y/N HBV surface antibody positive or vaccine  
\_\_\_\_ Y/N Hepatitis B Core Ab positive  
\_\_\_\_ Y/N Is patient on any potentially hepatotoxic drugs

If yes, list: \_\_\_\_\_

Other medical conditions: \_\_\_\_\_

Other Concerns

\_\_\_\_ Y/N eGFR  $\leq$  30: \_\_\_\_\_

\_\_\_\_ Y/N HIV Result \_\_\_\_\_ Date: \_\_\_\_\_

(If HIV+ consult HIV Expert for recommendations. HIV must be controlled before beginning therapy)

\_\_\_\_ Y/N Chronic Hepatitis B

**Initial HCV Chronic Care Pathway**

**12/19/18**

**Page 2 of 4**

**(A) ASSESSMENT:**

**PRIORITIES FOR TREATMENT:**

**PRIORITY 1**

- **ADVANCED HEPATIC FIBROSIS/CIRRHOSIS, LIVER TRANSPLANT RECIPIENTS, HCC, COMORBID HEPATITIS C CONDITIONS, IMMUNOSUPPRESSANT MEDICATION, OFFENDERS ALREADY ON TREATMENT---REFER TO CONSIDERATION OF HEPATITIS C TREATMENT PATHWAY**

**PRIORITY 2**

- **HIV OR HEPATITIS B CO-INFECTION, APRI  $\geq 0.7$ -1.99, STAGE 2 FIBROSIS, DM, COMORBID LIVER DISEASE, e-GFR  $\leq 59$**

**PRIORITY 3**

- **APRI  $< 0.7$ , FIBROSIS  $\leq$  STAGE 1**

\_\_\_\_\_ New enrollee

\_\_\_\_\_ Improved

\_\_\_\_\_ Stable

\_\_\_\_\_ Worsened

\_\_\_\_\_ Evidence of Cirrhosis (physical signs of cirrhosis, APRI  $\geq 2$ , CTP  $> 6$ , Hep C with plt  $< 150,000$ , FIB-4  $> 3.25$ , low albumin, AST/ALT Ratio  $> 1$ )

\_\_\_\_\_ Y/N Resolved (no detectable HCV RNA 6-12 months post treatment or if untreated no detectable viral load x 1)

**Chronic Hepatitis C**

\_\_\_\_\_ Y/N Patient is priority 1

\_\_\_\_\_ Y/N Patient is priority 2 or 3

\_\_\_\_\_ Y/N Patient declines therapy (signed refusal of treatment and documented)

\_\_\_\_\_ Y/N Failed prior treatment

\_\_\_\_\_ Y/N Dual Therapy

\_\_\_\_\_ Y/N Triple Therapy

\_\_\_\_\_ Y/N Does have enough time remaining in prison to complete treatment—release date: \_\_\_\_\_

\_\_\_\_\_ Y/N Other medical contraindication (life expectancy  $< 18$ mo, pregnancy, other). If yes, list: \_\_\_\_\_

\_\_\_\_\_ Y/N Demonstrates on-going or recent high risk behavior – drug use, new tattoos, etc.

**(P) PLAN:**

**Priority 1**

\_\_\_\_\_ Y/N If evidence of cirrhosis, reassess every 3-6 months in CY clinic using the Cirrhosis Pathway

\_\_\_\_\_ Y/N APRI  $> 2$  on two occasions and AST/ALT Ratio  $> 1$

\_\_\_\_\_ Y/N Stigmata of cirrhosis on physical exam (esp. spider angiomas)

\_\_\_\_\_ Y/N Evidence of ascites, esophageal varices

\_\_\_\_\_ Y/N FIB-4  $> 3.25$

\_\_\_\_\_ Y/N FIB-4 between 1.45-3.25, findings are indeterminate, consider Fibrosure test

\_\_\_\_\_ Y/N Low albumin

Plan for Priority 2 or 3

**Initial HCV Chronic Care Pathway**

**12/19/18**

**Page 3 of 4**

- \_\_\_\_ Y/N Physician CY Chronic Care appointment every 6 months if APRI >0.7, use the Follow-up HCV Chronic Care Clinical Pathway
- \_\_\_\_ Y/N Chronic Care appointment sooner, if yes; when: \_\_\_\_\_
- \_\_\_\_ Y/N Physician CY Chronic Care appointment every 12 months if APRI <0.7, use the Follow-up HCV Chronic Care Clinical Pathway, with nursing clinic at 6 months
- \_\_\_\_ Y/N CMP, CBC (with differential & platelets) every 6 months if APRI >0.7
- \_\_\_\_ Y/N CMP, CBC (with differential & platelets) every 12 months if APRI <0.7, with nursing clinic every 6 months
- \_\_\_\_ Y/N If hepatitis B positive, must be on treatment for Hepatitis B with negative viral load before referring for treatment
- \_\_\_\_ Y/N Evaluate APRI and FIB-4 scores with each lab draw
- \_\_\_\_ Y/N M-Score and Duty Status appropriate
- \_\_\_\_ Y/N If patient is not already immune to HAV (known by positive HAV total AB) or already s/p vaccination, Hepatitis A Vaccine 1 ml now then repeat in 6 months.
- \_\_\_\_ Y/N If patient is not already immune to HBV or already S/P vaccination, Hepatitis B Vaccine series 1 ml now then repeat in 1 month then 6 months
- \_\_\_\_ Y/N Consider HCV RNA if LFT's within normal limits for 2 years
- \_\_\_\_ Y/N Remove from clinic if HCV RNA undetectable
- \_\_\_\_ Y/N Patient's current Hepatitis C status was discussed



<b>TITLE:</b>	<b>Hepatitis C: Nurse Chronic Care Protocol</b>
<b>Physician Approval/Date:</b> Dr. Thomas Bredeman, D.O.	

**(S)     SUBJECTIVE:**

- \_\_\_\_\_ (Y/N)    RUQ pain
- \_\_\_\_\_ (Y/N)    Jaundice
- \_\_\_\_\_ (Y/N)    Lethargy/fatigue
- \_\_\_\_\_ (Y/N)    Disorientation
- \_\_\_\_\_ (Y/N)    Peripheral edema
- \_\_\_\_\_ (Y/N)    Chronic nausea and vomiting/vomiting blood
- \_\_\_\_\_ (Y/N)    Easy bruising

Other complaints: \_\_\_\_\_

**(O)     OBJECTIVE:**

- \_\_\_\_\_ (Y/N)    Received Hepatitis A series  
                    Date completed series: \_\_\_\_\_
- \_\_\_\_\_ (Y/N)    Received Hepatitis B series  
                    Date completed series: \_\_\_\_\_
- \_\_\_\_\_ (Y/N)    Jaundice (skin or sclera)
- \_\_\_\_\_ (Y/N)    Petechiae
- \_\_\_\_\_ (Y/N)    Ascities present
- \_\_\_\_\_ (Y/N)    Abnormal abdominal exam, such as; right upper quadrant tenderness, distention
- \_\_\_\_\_ (Y/N)    Lower extremity edema

**(A)     ASSESSMENT:            Hepatitis C Chronic Care Clinic**

**(P)     PLAN:**

- \_\_\_\_\_ (Y/N)    Unstable or concerns, contact provider for lab orders and earlier follow-up

**Patient Education**

- \_\_\_\_\_ (Y/N)    Healthy eating especially avoiding fatty foods
- \_\_\_\_\_ (Y/N)    Fluid intake 8-10 8-ounce cups of water per day
- \_\_\_\_\_ (Y/N)    Stop smoking
- \_\_\_\_\_ (Y/N)    Exercise
- \_\_\_\_\_ (Y/N)    Avoid more than 6 regular strength Tylenol in a day
- \_\_\_\_\_ (Y/N)    Avoid IV drug, tattooing, body piercing or having sex with other offenders
- \_\_\_\_\_ (Y/N)    Avoid sharing personal items that might have blood on them such as

**Hepatitis C Chronic Care Clinic Nursing Protocol**

**2016**

**Page 1 of 2**





- toothbrushes, dental appliances, nail-grooming equipment or razors.
- \_\_\_\_\_ (Y/N) Cover cuts and skin sores to keep blood from contacting other persons
- \_\_\_\_\_ (Y/N) For the remainder of your life, do not drink alcohol at all, and speak to a physician prior to taking any new medications, including over-the-counter medications such as Ibuprofen and Aleve and herbal remedies, that may damage your liver.
- \_\_\_\_\_ (Y/N) Upon release do not donate blood, semen, body organs or other tissue.
- \_\_\_\_\_ (Y/N) Upon release seek medical attention so that you receive appropriate monitoring and treatment of your condition.
- \_\_\_\_\_ (Y/N) Other: \_\_\_\_\_